

WHAT IS CLAIMED IS:  
Claims

1. Nonfelting wool, characterized in that the wool is
- 5 a) exposed to a plasma in a pretreatment,  
 b) optionally with an aqueous dispersion of self-dispersing isocyanates,  
 c) then with a softener and  
 d) optionally finally with an antislip agent.
- 10 2. Nonfelting wool, characterized in that the wool is
- a) exposed to a plasma in a pretreatment,  
 b) with an aqueous dispersion of self-dispersing isocyanates,  
 c) then with a softener and  
 15 d) optionally finally with an antislip agent.
3. Nonfelting wool according to Claim 1 or 2, characterized in that the wool is raw wool after the raw wool scour, dyed or undyed wool slubbing, dyed or undyed wool yarn, knits or cloths.
- 20 4. Nonfelting wool according to Claim 1 or 2, characterized in that the self-dispersing isocyanates used in step b) have an isocyanate content of 1 - 25% by weight, reckoned as NCO (having a molecular weight of 42 g/mol), and are obtainable by reaction in any order of
- 25 I) organic polyisocyanates having an average NCO functionality of 1.8 - 4.2 with
- II) polyalkylene oxide alcohols, amines and/or thiols of the formula 1
- 30 
$$R^1R^2N-(CHX-CHY-O)_n-CHX-CHY-ZH \quad (1)$$
- where
- 35 n is 3-70,

X and Y are hydrogen or methyl with the proviso that when one of X and Y is methyl the other must be hydrogen,

5 R<sup>1</sup> and R<sup>2</sup> are independently straight-chain or branched C<sub>1</sub>-C<sub>6</sub>-alkyl radicals or straight-chain or branched C<sub>1</sub>-C<sub>6</sub>-acyl radicals, with the proviso that if R<sup>1</sup> is a straight-chain or branched C<sub>1</sub>-C<sub>6</sub>-acyl radical, R<sup>2</sup> can also be hydrogen, and, furthermore, R<sup>1</sup> and R<sup>2</sup> may also combine to form a -(CH<sub>2</sub>)<sub>m</sub>- alkylene radical where  
10 m = 4, 5, 6 or 7, wherein one or two CH<sub>2</sub> groups can be replaced by O and/or NH and/or one or two CH<sub>2</sub> groups can be substituted by methyl, and

Z is O, S or NH,

15 and optionally

III) further NCO-reactive compounds containing anionic, cationic and/or potentially anionic or cationic groups,

20 and optionally

IV) further auxiliary and additive substances.

5. Nonfelting wool according to Claim 4, characterized in that the organic polyisocyanates I) are unmodified aliphatic, cycloaliphatic, araliphatic or aromatic isocyanates having an average NCO functionality of 1.8-4.2.

6. Nonfelting wool according to Claim 4, characterized in that the polyalkylene oxide alcohols, amines and/or thiols of the formula 1 contain on average 6-60 and preferably 7-20 alkylene oxide units per molecule.

7. Nonfelting wool according to Claim 6, characterized in that they are polyethylene oxide/propylene oxide alcohols, amines and/or thiols which preferably contain not less than 60 mol%, preferably not less than 70 mol%, of ethylene oxide units, based on the sum total of ethylene oxide and propylene oxide units.

8. Nonfelting wool according to Claim 4, characterized in that the NCO-reactive compounds III) are
- i) hydroxyl- or amino-functional compounds having tertiary amino groups,
  - 5 ii) hydroxyl- or amino-functional compounds having carboxyl or sulphonic acid groups,
  - iii) hydroxyl- or amino-functional compounds having carboxylate or sulphonate groups whose counterions are metal cations of the alkali metal or alkaline earth metal group or ammonium ions, or
  - 10 iv) hydroxyl- or amino-functional compounds having ammonium groups which are obtainable from the tertiary amino groups of the compounds i) by alkylation or protonation.
9. Nonfelting wool according to one or more of Claims 1 - 8, characterized in that the softeners used in step c) are fatty acid amides, ester quarts, quaternary fatty acid amides, betaines, fatty acid sarcosides, aminosilicones, polyethylene wax emulsions or silicone emulsions.
10. Nonfelting wool according to one or more of Claims 1 - 9, characterized in that the antislip agents used in step d) are anionic or cationic silica sols, blocked isocyanate resins, hydrophilicized isocyanate resins, polyacrylates or polyvinyl alcohols.
11. Process for the antifelt finishing of wool, characterized in that the wool is
- a) exposed to a plasma in a pretreatment,
  - b) optionally with an aqueous dispersion of self-dispersing isocyanates,
  - c) then with a softener and
  - d) optionally finally with an antislip agent.
12. Process for the antifelt finishing of wool according to Claim 11, characterized in that the aftertreatment b) of the wool material pretreated as per step a) is effected either batchwise in an exhaust process or continuously by dipping, roll application, padding, application of a mist or spray or backwasher application.

